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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.         | CONFIRMATION NO.       |
|--|-------------|----------------------|-----------------------------|------------------------|
| 10/531,480   | 04/15/2005  | Kenichiro Nakajima   | Q72653                      | 9084                   |
| 23373 7590 12/13/2007<br>SUGHRUE MION, PLLC<br>2100 PENNSYLVANIA AVENUE, N.W.<br>SUITE 800<br>WASHINGTON, DC 20037 |             |                      | EXAMINER<br>SHEEHAN, JOHN P |                        |
|  |             |                      | ART UNIT<br>1793            | PAPER NUMBER           |
|  |             |                      | MAIL DATE<br>12/13/2007     | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/531,480

**Applicant(s)**

NAKAJIMA, KENICHIRO

**Examiner**

John P. Sheehan

**Art Unit**

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-22 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claims 1 to 12, drawn to a rare earth containing alloy having a composition,  $R(T_{1-x}A_x)_{13-y}$  wherein R represents at least one rare earth element selected from the group consisting of La, Ce, Pr, Nd, Sm, Eu, Tb, Dy, Ho, Ym, Yb, Gd, and Lu; T represents at least species selected from the group consisting of Fe, Co, Ni, Mn, Pt and Pd; A represents at least one element selected from the group consisting of Al, As, Si, Ga, Ge, Mn, Sn, and Sb ( $0.05 \leq x \leq 0.2$ ;  $-1 \leq t \leq 1$ ) having a R-rich phase and an R-poor phase wherein the R-rich phase and the R-poor phase are dispersed at a phase spacing of 0.01 to 100  $\mu\text{m}$ , a method of making this alloy, a magnetostrictive device containing this alloy and a magnetic refrigerant provided from this alloy.

Group II, claim(s) 13 to 22, drawn to a rare earth containing alloy having a composition,  $R_rT_tA_a$  wherein R represents at least one rare earth element selected from the group consisting of La, Ce, Pr, Nd, Sm, Eu, Tb, Dy, Ho, Ym, Yb, Gd, and Lu; T represents transition metals containing at least Fe atoms, a portion of the Fe atoms being optionally substituted by at least one element selected from the group consisting of Co, Ni, Mn, Pt and Pd; A represents at least one element selected from the group consisting of Al, As, Si, Ga, Ge, Mn, Sn, and Sb and r, t and a are :  $5.0\text{at}\% \leq r \leq 6.8\text{at}\%$ ,  $73.8\text{at}\% \leq t \leq 88.7\text{at}\%$ , and  $4.6\text{at}\% \leq a \leq 19.4\text{at}\%$ , having an  $\text{NaZn}_{13}$ -type crystal structure in an amount of at least 85 mass% and  $\alpha$ -Fe in an amount of 5 to 15 mass%, a method of forming a powder from this alloy, a method of forming a sintered product from this alloy and a sintered product.

2. The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or

corresponding special technical features for the following reasons: The special technical feature of the Group I invention is a rare earth containing alloy having a composition,  $R(T_{1-x}A_x)_{13-y}$  wherein R represents at least one rare earth element selected from the group consisting of La, Ce, Pr, Nd, Sm, Eu, Tb, Dy, Ho, Ym, Yb, Gd, and Lu; T represents at least species selected from the group consisting of Fe, Co, Ni, Mn, Pt and Pd; A represents at least one element selected from the group consisting of Al, As, Si, Ga, Ge, Mn, Sn, and Sb ( $0.05 \leq x \leq 0.2$ ;  $-1 \leq t \leq 1$ ) having a R-rich phase and an R-poor phase wherein the R-rich phase and the R-poor phase are dispersed at a phase spacing of 0.01 to 100  $\mu\text{m}$ . While the special technical feature of the Group II invention is a rare earth containing alloy having a composition,  $R_rT_tA_a$  wherein R represents at least one rare earth element selected from the group consisting of La, Ce, Pr, Nd, Sm, Eu, Tb, Dy, Ho, Ym, Yb, Gd, and Lu; T represents transition metals containing at least Fe atoms, a portion of the Fe atoms being optionally substituted by at least one element selected from the group consisting of Co, Ni, Mn, Pt and Pd; A represents at least one element selected from the group consisting of Al, As, Si, Ga, Ge, Mn, Sn, and Sb and r, t and a are :  $5.0\text{at}\% \leq r \leq 6.8\text{at}\%$ ,  $73.8\text{at}\% \leq t \leq 88.7\text{at}\%$ , and  $4.6\text{at}\% \leq a \leq 19.4\text{at}\%$ , having an  $\text{NaZn}_{13}$ -type crystal structure in an amount of at least 85 mass% and  $\alpha\text{-Fe}$  in an amount of 5 to 15 mass%.

3. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

4. The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

5. Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

### ***Conclusion***

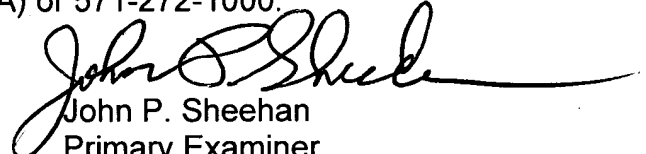
Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (571) 272-1249. The examiner can normally be reached on T-F (7:30-5:00) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
John P. Sheehan  
Primary Examiner  
Art Unit 1793

JPS